CR # 96-0306b

his Version (B) differ from the original version of this CCR as follows:

The reference to S-PLS-00260 that indicated that the link should be broken with the parent RBR is removed from the Reference Table, 	sinc the previous intention to break this particular link was in error.

S-PLS-01210 link to PGS-0270#A is removed from this CCR since this linkage showed inappropriate mapping.

Suggested linkage between S-PLS-60610 and EOSD1750#A is removed from this CCR. The alternate linkage between S-PLS-60610 and 	ENS 0450#A is added.

Suggested linkage between S-PLS-01270 and PGS-1190#(A and B) is removed from this CCR. Since this action causes a Parent-without- 	Chil status with the RBR, to resolve the status the following links are added to this CCR:

S-DPS-21540 and S-DPS-20850 link to PGS-1190#A
S-DPS-21540 and S-DPS-20850 link to PGS-1190#B

Interpretation Text for PGS-0230#B is deleted - inappropriate

Linkage of S-PLS-00611 to current DADS2020#B

Added a record to indicate the deletion of linkage between S-PLS-00465 and PGS-0520#B (missing in the original CCR).

Removed reference to delete linkage between S-PLS-00875 and PGS-1130#A

Miscellaneous editorial corrections are made. Included Mandatory Attributes to tables.

CR # 96-0306b

TM Changes to PLS Level 4 Requirements and their parent RbR requirements currently in RTM BASELINE030196.

ABLE 1:   Table 1 represent the Reference Table for all change that are made by this CCR.

L4 ID	Rel	RTM Key	L4 Text	Clarification	Req Type	RbR ID	RTM key	RbR Text	RbR Type	Interpretatio
S-PLS-00010	A	4221	The PLANG CI shall accept Production Requests for specific Data Products with associated time windows that are to be routinely generated.	Time window refers to the coverage time of the data set	functional	EOSD1050#A	4813	ECS shall generate and make available to the users Level 1 Standard Products within 24 hours after the availability to ECS of all necessary input data sets.	performance	
S-PLS-00010						EOSD1060#A	4814	ECS shall generate and make available to the users Level 2 Standard Products within 24 hours after the availability to ECS of all necessary Level 1 and other input data sets.	performance	
S-PLS-00010						EOSD1070#A	4815	ECS shall generate and make available to the users Level 3 Standard Products within 24 hours after the availability to ECS of all necessary Level 2 and other input data sets.	performance	
S-PLS-00010						EOSD1080#A	4816	ECS shall generate and make available to the users Level 4 Standard Products within one week after the availability to ECS of all necessary Level 3 and other input data sets.	performance	
S-PLS-00010						EOSD1050#B	3850	ECS shall generate and make available to the users Level 1 Standard Products within 24 hours after the availability to ECS of all necessary input data sets.	performance	
S-PLS-00010						EOSD1060#B	3851	ECS shall generate and make available to the users Level 2 Standard Products within 24 hours after the availability to ECS of all necessary Level 1 and other input data sets.	performance	
S-PLS-00010						EOSD1080#B	3853	ECS shall generate and make available to the users Level 4 Standard Products within one week after the availability to ECS of all necessary Level 3 and other input data sets.	performance	
S-PLS-00010						EOSD1070#B	3852	ECS shall generate and make available to the users Level 3 Standard Products within 24 hours after the availability to ECS of all necessary Level 2 and other input data sets.	performance	

S-PLS-00020	A	4222	The PLANG CI shall generate Data Processing Requests from Production Requests.		functional	PGS-0240#A	4149	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.	functional	Reprocessing capabilities f… PRONG exis… RLS A but a… not implemented until RLS B when PLAN(capability fo… reprocessing becomes effective in RLS B.
S-PLS-00020						PGS-0240#B	4609	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.	functional	
S-PLS-00110	B	~~9034~~	~~The PLANG CI shall reject a Production Request for On-Demand Data Products if the processing completion deadline (specified in the Production Request) cannot be met.~~		~~functional~~	PGS-0160#B	4557	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.	functional	
S-PLS-00110						PGS-0165#B	4559	The PGS shall accept priority processing requests from the IMS.	functional	
S-PLS-00120	B	~~9035~~	~~The PLANG CI shall validate Production Requests for On-Demand Data Products against a pre-approved list of acceptance criteria.~~		~~functional~~	PGS-0160#B	4557	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.	functional	
S-PLS-00120						PGS-0165#B	4559	The PGS shall accept priority processing requests from the IMS.	functional	
S-PLS-00180	A	4235	The PLANG CI shall ~~validate updates (modifications / cancellations) to existing Production Requests~~ provide the capability to create new production requests from existing production requests.		functional					
S-PLS-00200	A	~~4237~~	~~The PLANG CI shall accept updates (modifications / cancellations) to Production Requests entered by the operations staff.~~		functional	PGS-0160#A	4136	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.	functional	
S-PLS-00200						PGS-0160#B	4557	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.	functional	

CR # 96-0306b

S-PLS-00220	A	4238	The PLANG CI shall support the display of a response message to the operations staff, indicating the acceptance /rejection status of updates to a Production Request.		functional	PGS-0285#B	4632	The PGS shall transmit to the IMS a status message to confirm or reject a processing order. The reason for rejection shall be included.	functional	Functionally IMS is a part OPS.
S-PLS-00230	~~B~~	~~9043~~	~~The PLANG CI shall provide production rules (via GUI) to break up large reprocessing Production Requests.~~		~~functional~~	PGS-0220#B	4591	The PGS shall create a reprocessing plan containing at a minimum: a. A list of processing tasks needed to carry out each productÍs reprocessing b. Estimated schedule for each task c. The order in which tasks will be executed	functional	
S-PLS-00230						PGS-0230#B	4600	The PGS shall base the PGS reprocessing plan on, at a minimum: a. Requests received from the IMS b. SMC directives c. The Standard Product specifications	functional	~~Although capability for reprocessing not implemented until Release it is listed her because requirements required to generically "build a plan" would otherwise be untraceable.~~
S-PLS-00405	B	9044	The PLANG CI shall allow the conditions for execution of Product Generation Executives (PGEs) to include the values of ~~intermediate results such as~~ metadata fields of input data.		functional					
S-PLS-00410	A	~~4241~~	~~The PLANG CI shall support the capability to display (via GUI) a list of PGEs maintained in its PGE information database.~~		~~functional~~	PGS-0210#A	4145	The PGS shall maintain an algorithm processing control language capable of constructs (e.g., if-then-else) based on the complexities of the PGS. This control language shall be utilized in conjunction with a database of product specifications that contains the recipe for the generation of all Standard Products allocated to that PGS including, at a minimum: a. The algorithm(s) to be used b. The order in which algorithms are to be executed c. The input data sets required d. Time and other processing resources required	functional	PGE activati rules = script language that managed wit the Planning Database.

S-PLS-00410						PGS-0210#B	4588	The PGS shall maintain an algorithm processing control language capable of constructs (e.g., if-then-else) based on the complexities of the PGS. This control language shall be utilized in conjunction with a database of product specifications that contains the recipe for the generation of all Standard Products allocated to that PGS including, at a minimum: a. The algorithm(s) to be used b. The order in which algorithms are to be executed c. The input data sets required d. Time and other processing resources required	functional	PGE activati rules = script language that managed witl the Planning Database.
S-PLS-00420	A	~~4242~~	~~The PLANG CI shall support the capability to browse (via GUI) the information maintained on a specific PGE.~~		~~functional~~	PGS-0210#A	4145	The PGS shall maintain an algorithm processing control language capable of constructs (e.g., if-then-else) based on the complexities of the PGS. This control language shall be utilized in conjunction with a database of product specifications that contains the recipe for the generation of all Standard Products allocated to that PGS including, at a minimum: a. The algorithm(s) to be used b. The order in which algorithms are to be executed c. The input data sets required d. Time and other processing resources required	functional	PGE activati rules = script language that managed witl the Planning Database.
S-PLS-00420						PGS-0210#B	4588	The PGS shall maintain an algorithm processing control language capable of constructs (e.g., if-then-else) based on the complexities of the PGS. This control language shall be utilized in conjunction with a database of product specifications that contains the recipe for the generation of all Standard Products allocated to that PGS including, at a minimum: a. The algorithm(s) to be used b. The order in which algorithms are to be executed c. The input data sets required d. Time and other processing resources required	functional	PGE activati rules = script language that managed witl the Planning Database.
S-PLS-00430	A	~~4243~~	~~The PLANG CI shall support the capability to (a) allow (authorized) operations staff updates (enter / modify / delete) of PGE information in the Planning PGE information database, (b) maintain a record of updates made~~		~~functional~~	EOSD2400#B	3883	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.	security	

S-PLS-00430								PGS-0140#A	4134	The PGS shall provide tools to help the PGS staff create and modify SDPS plans, schedules, and lists.	functional	
S-PLS-00430								PGS-0210#A	4145	The PGS shall maintain an algorithm processing control language capable of constructs (e.g., if-then-else) based on the complexities of the PGS. This control language shall be utilized in conjunction with a database of product specifications that contains the recipe for the generation of all Standard Products allocated to that PGS including, at a minimum: a. The algorithm(s) to be used b. The order in which algorithms are to be executed c. The input data sets required d. Time and other processing resources required	functional	PGE activati rules = script language that managed wit the Planning Database.
S-PLS-00430								PGS-0210#B	4588	The PGS shall maintain an algorithm processing control language capable of constructs (e.g., if-then-else) based on the complexities of the PGS. This control language shall be utilized in conjunction with a database of product specifications that contains the recipe for the generation of all Standard Products allocated to that PGS including, at a minimum: a. The algorithm(s) to be used b. The order in which algorithms are to be executed c. The input data sets required d. Time and other processing resources required	functional	PGE activati rules = script language that managed wit the Planning Database.
S-PLS-00430								PGS-0930#A	4205	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.	functional	A: TRMM Transfer of algorithm implies verifying pro resource utilization resources.
S-PLS-00430								PGS-0140#B	4549	The PGS shall provide tools to help the PGS staff create and modify SDPS plans, schedules, and lists.	functional	
S-PLS-00430								EOSD2400#A	4843	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.	security	

CR # 96-0306b

						PGS-0930#B	4902	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.	functional	B: AM-1, COLOR Transfer of algorithm implies verifying pro resource utilization resources.
~~S-PLS-00430~~										
S-PLS-00450	A	4245	The PLANG CI shall support the capability that allows the operations staff to update (enter/ modify/ delete) the Production Rules (via GUI).	<u>Production rules limited to priorities at release A</u>	functional					
~~S-PLS-00465~~	B	~~9050~~	~~The PLANG shall maintain lists of input Granules in order to support the production of tile or spatial-based output Granules~~		~~functional~~	PGS-0190#B	4576	The PGS shall coordinate with the DADS on the staging of data for product generation.	functional	
~~S-PLS-00465~~	B					PGS-0520#B	4878	The PGS shall have the capability to generate data products from any single data input or combination of data inputs according to the algorithms provided by the scientists.	functional	B: EDOS generated L0 data.
~~S-PLS-00475~~	A	4248	The PLANG CI shall maintain information on all Candidate and Active Plans generated.	Candidate plan = proposed plan; Active plan = candidate plan chosen and invoked by the operator.	functional	PGS-0180#A	4143	The PGS shall receive a notice from DADS when data that it has received is available.	functional	A: TRMM a applicable DAACS
S-PLS-00475						PGS-0180#B	4571	The PGS shall receive a notice from DADS when data that it has received is available.	functional	
S-PLS-00490	A	4249	The PLANG CI shall ~~maintain Planning system fault data using fault isolation tools provided by the LSM~~ <u>log Planning subsystem faults to MSS</u>.	MSS=LSM. Tools provided by MSS are used to get all the fault detections.	interface					
~~S-PLS-00611~~	B	~~9053~~	~~The operations staff shall manually submit (to the Data Server) Data Subscriptions for the Data Availability Schedules (DAS) of any remote ECS sites, any IP and any ODC that makes a DAS available~~		~~procedural~~	PGS-0190#B	4576	The PGS shall coordinate with the DADS on the staging of data for product generation.	functional	

~~S-PLS-00611~~						DADS2020#B	6161	Each DADS shall have the capability to receive data availability schedules at a minimum, from: a. b. IPs c. ADCs d. ODCs e. Other DADS f. TRMM (SDPF)	functional	APPLIES ONLY TO GSFC DACC AND LARC DAAC; AST GDS interfac to EDC DAA only; ASTEF GDS DATA AVAILABIL Y SCHEDULE (TO EDC AN DAAC ONL
S-PLS-00615	~~B~~	~~9054~~	~~The operations staff shall manually submit (to the Data Server) Data Subscriptions for FOS plans and schedules.~~		~~procedural~~					
S-PLS-00606	~~B~~	~~9052~~	~~The PLANG CI shall send advertisement subscriptions to the IOS.~~		~~interface~~	IMS-0550#B	5142	The IMS shall allow a user to locate and identify desired data without detailed knowledge of the ECSs: a. Architecture b. Data Base management system c. Data Base structure d. Query languages e. Data formats	functional	
S-PLS-00690	A	4260	The PLANG CI shall create a Candidate Plan specifying a timeline for PGE execution that will satisfy Production Requests for Standard Products <u>consistent with available and allocated processing resources</u>.		functional					
S-PLS-00700	B	9062	The PLANG CI shall create a Candidate Plan specifying a timeline for PGE execution that will satisfy Production Requests for Reprocessing and On-Demand Data Products <u>consistent with available and allocated processing resources</u>.		functional					

CR # 96-0306b

S-PLS-00710	A	4262	The PLANG CI shall create a Candidate Plan based on the following: 1. Outstanding production requests, their priorities and estimated runtimes, 2. Ground events, their priority and estimated duration, 3. Planning production rules, 4. Mutual PGE accessibility of shared data, 5. Completion notification status messages from Data Processing.	PLANG capabilities are listed because they are incorporated in Standard Processing.	functional	SMC-1345#A	4229	The LSM shall perform priority management services to resolve conflicts for ECS resources.	functional	
S-PLS-00710						PGS-0270#A	4153	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS	functional	A Task = PG "Allocation c tasks among processors" i supported through resource availablity. A: Cancel execution of tasks.
S-PLS-00710						PGS-0270#B	4630	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS	functional	A Task = PG "Allocation c tasks among processors" i supported through resource availablity. F Suspend/Res e exexution c task.
S-PLS-00710						SMC-1345#B	5163	The LSM shall perform priority management services to resolve conflicts for ECS resources.	functional	B: Fully automated
S-PLS-00730	A	4264	The PLANG CI shall have the capability to plan algorithm and calibration coefficient test time in the test environment.	This addresses the resource planning aspects of AIT support	functional					

CR # 96-0306b

S-PLS-00740	A	4265	The PLANG CI shall have the capability to schedule algorithm test Data Processing Requests that do not interfere with the operational production environment.	Support for parallel Planning and Data Processing capability to be provided for AIT	functional					
S-PLS-00741	B	9064	The PLANG CI shall be capable of seperateing AI&T activities from the operational production environment.		functional					
S-PLS-00870	A	~~4279~~	~~The operations staff shall manually submit Data Subscriptions for PGE input data to the appropriate Data Servers.~~		~~procedural~~	DADS0540#A	4108	Each DADS shall notify the PGS of the receipt of non-EOS data sets required for Standard Product production.	functional	A: TRMM
S-PLS-00870						PGS-0190#B	4576	The PGS shall coordinate with the DADS on the staging of data for product generation.	functional	
S-PLS-00870						DADS0550#A	4109	Each DADS shall notify the PGS of the receipt of EOS data sets required for Standard Product production (e.g., data received from non-collocated DADS).	functional	A: Dependencie b/w CERES, LIS
S-PLS-00870						PGS-0190#A	4144	The PGS shall coordinate with the DADS on the staging of data for product generation.	functional	A: TRMM a applicable DAACS
S-PLS-00870						DADS0540#B	3507	Each DADS shall notify the PGS of the receipt of non-EOS data sets required for Standard Product production.	functional	
S-PLS-00870						DADS0550#B	3508	Each DADS shall notify the PGS of the receipt of EOS data sets required for Standard Product production (e.g., data received from non-collocated DADS).	functional	B: full compatibility
S-PLS-00872	A	~~4280~~	~~The operations staff shall manually submit Data Subscriptions for L0 data to the Ingest Subsystem.~~		~~procedural~~	PGS-0190#A	4144	The PGS shall coordinate with the DADS on the staging of data for product generation.	functional	A: TRMM a applicable DAACS
S-PLS-00872						PGS-0190#B	4576	The PGS shall coordinate with the DADS on the staging of data for product generation.	functional	

S-PLS-00875	A	4281	The PLANG CI shall receive Subscription Notices indicating availability of subscribed data.	Subscriptions issued by PLANG are needed by PRONG to acquire Q/A metadata. This is used somewhat like status gathering.	functional	PGS-1130#B	4982	The PGS shall receive product QA from the SCF which shall describe the results of the scientists product quality review at an SCF. Product QA shall contain the following information at a minimum: a. Identification of product b. QA results c. Product storage and processing instructions	functional	
S-PLS-00880	A	~~4282~~	~~The operations staff shall manually cancel Data Subscriptions for input data to PGEs that are no longer used, once they determine that the input data is not required by any other PGE.~~		~~procedural~~	PGS-0190#A	4144	The PGS shall coordinate with the DADS on the staging of data for product generation.	functional	A: TRMM applicable DAACS
S-PLS-00880						PGS-0190#B	4576	The PGS shall coordinate with the DADS on the staging of data for product generation.	functional	
S-PLS-01030	A	4286	The PLANG CI shall update the Active Plan with the ~~current processing~~ received status of each Data Processing Request listed.		functional					
S-PLS-01040	A B	4287	The PLANG CI shall send the current processing status of Production Requests (for On-Demand Data Products) to the originating Data Server.		interface	PGS-0410#A	4175	The PGS shall have the capability to track the processing status of all products scheduled to be generated.	functional	
S-PLS-01210	B	9069	The PLANG CI shall provide the operations staff with the capability to perform the following on-line functions, via GUI: a. Entry/query/update/ cancellation of Production Requests for Reprocessing, b. Query/update/cancellation of Production Requests for On-Demand Data Products.		functional	PGS-0285#B	4632	The PGS shall transmit to the IMS a status message to confirm or reject a processing order. The reason for rejection shall be included.	functional	Functionally IMS is a part OPS.
S-PLS-01210	B					SCF-0270#B	2453	The ECS shall have the capability to receive a Reprocessing Request from the SCF. This request, at a minimum, contains the following, a list of all the products to be generated, the version numbers of the science software and calibration coefficients, a list of all ancillary data, and data start and stop times.	interface	

S-PLS-01240	A	4292	The PLANG CI shall support the display (via GUI) of Planning ~~hardware and~~ software detected faults to the operations staff.		functional				
S-PLS-01270	A	4296	The PLANG CI shall support the generation of Data Processing Request Status reports (upon request) that will provide Data Processing Request information based on the report generation parameters and the time period specified.		functional	PGS-1190#A	4262	The PGS shall have the capability to log the identification of all non-stored products or suspended processing directed by the data product quality staff to support the maintenance of performance statistics.	functional	
S-PLS-01270	A					PGS-1190#B	5014	The PGS shall have the capability to log the identification of all non-stored products or suspended processing directed by the data product quality staff to support the maintenance of performance statistics.	functional	
S-DPS-20850	A	4415	The PRONG CI shall destage Intermediate Data Products to the SDSRV CI.		interface	PGS-1190#A	4262	The PGS shall have the capability to log the identification of all non-stored products or suspended processing directed by the data product quality staff to support the maintenance of performance statistics.	functional	
S-DPS-20850	A					PGS-1190#B	5014	The PGS shall have the capability to log the identification of all non-stored products or suspended processing directed by the data product quality staff to support the maintenance of performance statistics.	functional	
S-DPS-21540	A	4442	The PRONG CI shall destage all output data generated by a PGE to the SDSRV CI. (SEE Data Staging and Destaging Reqs for more details).		interface	PGS-1190#A	4262	The PGS shall have the capability to log the identification of all non-stored products or suspended processing directed by the data product quality staff to support the maintenance of performance statistics.	functional	
S-DPS-21540	A					PGS-1190#B	5014	The PGS shall have the capability to log the identification of all non-stored products or suspended processing directed by the data product quality staff to support the maintenance of performance statistics.	functional	

S-PLS-01450	A	~~4306~~	~~The PLANG CI shall collect Configuration Management Data and provide it to the MSS.~~		~~interface~~	PGS-0310#A	4160	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.	functional	
S-PLS-01450						PGS-0310#B	4655	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.	functional	
S-PLS-01600	A	4312	The PLANG CI design and implementation shall have the flexibility to accommodate Planning expansion up to a factor of 3 in its capacity with no changes to its design, and up to a factor of 10 without major changes to its design. Such expansion in capacity or capability shall be transparent to existing algorithms or product specifications.		evolvable	EOSD0545#B	3835	ECS shall be able to accommodate growth (e.g., capacity) in all of its functions as well as the addition of new functions.	functional	For complian refer to Segment Specification 305/DV2, System Design Spec (SDS) 207/SE1.
S-PLS-01610	A	4313	The PLANG CI shall be developed with configuration controlled APIs that will be capable of supporting development and integration of new algorithms developed at DAACs to support DAAC value-added production.	APIs consist of public class libraries.	functional					
S-PLS-02400	B		The PLANG CI shall provide a list of replan events which will cause the user to be notified and given the option to replan.	This is a static list, provided at delivery.	functional	PGS-0140#B	4549	The PGS shall provide tools to help the PGS staff create and modify SDPS plans, schedules, and lists.	functional	
S-PLS-02410	B		The PLANG CI shall consider the creation of a new resource plan to be a replan event if it changes the availability of hardware resources within a configurable amount of time in the future.	The change in resource availability will be indicated by a new resource plan.	functional	PGS-0140#B	4549	The PGS shall provide tools to help the PGS staff create and modify SDPS plans, schedules, and lists.	functional	

CR # 96-0306b

S-PLS-02420	B		The PLANG CI shall consider the arrival of a new Predicted Data Availability Schedule to be a replan event if it indicates a delay in the predicted arrival of data by more than a configurable (for that particular data type) amount of time.	The intent is to allow the configurable parameters to be set for each individual ESDT.	functional	PGS-0140#B	4549	The PGS shall provide tools to help the PGS staff create and modify SDPS plans, schedules, and lists.	functional	
S-PLS-02430	B		The PLANG CI shall consider the submission of an On-Demand Prodution Request to be a replan event if the resource requirements exceed predefined thresholds.		functional	PGS-0140#B	4549	The PGS shall provide tools to help the PGS staff create and modify SDPS plans, schedules, and lists.	functional	
S-PLS-02440	B		The PLANG CI shall have the capability of providing an estimate of the resource usage for a production request prior to the inclusion of that request in a production plan.	This requirement is intended to assist the planning of reprocessing requests and to support on-demand requests.	functional	PGS-0220#B	4591	The PGS shall create a reprocessing plan containing at a minimum: a. A list of processing tasks needed to carry out each productÍs reprocessing b. Estimated schedule for each task c. The order in which tasks will be executed	functional	
S-PLS-60010	A	4314	The PLNHW CI shall support the hardware resource requirements of the PLANG CI and its interface requirements with the operations staff performing planning functions.		functional	EOSD0500#A	5598	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management	functional	This "high level" requirement covers almos all capabilitie provided by ECS. Only selected software and hardware requirements are mapped t this requirement. Additional software requirements are mapped t "lower level" RBRs which more specific

CR # 96-0306b

S-PLS-60380	A	9235	The PLNHW CI design and implementation shall have the flexibility to accommodate planning workload expansion up to a factor of 3 in its capacity with no changes in its design and up to a factor of 10 without major changes to its design.		evolvable	EOSD0545#B	3835	ECS shall be able to accommodate growth (e.g., capacity) in all of its functions as well as the addition of new functions.	functional	For complian refer to Segment Specification 305/DV2, System Desig Spec (SDS) 207/SE1.
S-PLS-60610	A	9162	The PLNHW CI shall interface with the ISS.		interface	ESN-0450#A	5316	The ESN shall provide process-to-process communication service.	functional	

CR # 96-0306b

ABLE 2: Table 2 shows the LEVEL_4 requirements and mandatory attributes that shall be <u>modified</u> by this CCR.

4 ID	Rel	RTM Key	L4 Text	Rqt Status	Verific Method	Clarific	Req Type
-PLS-00010	A	4221	The PLANG CI shall accept Production Requests for specific Data Products with associated time windows that are to be routinely generated.	Approved	demo	<u>Time window refers to the coverage time of the data set</u>	functional
-PLS-00180	A	4235	The PLANG CI shall ~~validate updates (modifications / cancellations) to existing Production Requests~~ <u>provide the capability to create new production requests from existing production requests</u>.	Approved	demo		functional
-PLS-00405	B	9044	The PLANG CI shall allow the conditions for execution of Product Generation Executives (PGEs) to include <u>the values of</u> ~~intermediate results such as~~ metadata fields of input data.	Approved	test		functional
-PLS-00450	A	4245	The PLANG CI shall support the capability that allows the operations staff to update (enter/ modify/ delete) the Production Rules (via GUI).	Approved	demo	<u>Production rules limited to priorities at release A</u>	functional
-PLS-00490	A	4249	The PLANG CI shall ~~maintain Planning system fault data using fault isolation tools provided by the LSM~~ <u>log Planning subsystem faults to MSS</u>.	Approved	demo	MSS=LSM. Tools provided by MSS are used to get all the fault detections.	interface
-PLS-00690	A	4260	The PLANG CI shall create a Candidate Plan specifying a timeline for PGE execution that will satisfy Production Requests for Standard Products <u>consistent with available and allocated processing resources</u>.	Approved	demo		functional
-PLS-00700	B	9062	The PLANG CI shall create a Candidate Plan specifying a timeline for PGE execution that will satisfy Production Requests for Reprocessing and On-Demand Data Products <u>consistent with available and allocated processing resources</u>.	Approved	test		functional
-PLS-00730	A	4264	The PLANG CI shall have the capability to plan algorithm and calibration coefficient test time in the test environment.	Approved	demo	<u>This addresses the resource planning aspects of AIT support</u>	functional

-PLS-00740	A	4265	The PLANG CI shall have the capability to schedule algorithm test Data Processing Requests that do not interfere with the operational production environment.	Approved	demo	Support for parallel Planning and Data Processing capability to be provided for AIT	functional
-PLS-00741	B	9064	The PLANG CI shall be capable of seperateing AI&T activities from the operational production environment.	Approved	test		functional
-PLS-00875	A	4281	The PLANG CI shall receive Subscription Notices indicating availability of subscribed data.	Approved	demo	~~Subscriptions issued by PLANG are needed by PRONG to acquire Q/A metadata. This is used somewhat like status gathering.~~	functional
-PLS-01030	A	4286	The PLANG CI shall update the Active Plan with the ~~current processing~~ received status of each Data Processing Request listed.	Approved	demo		functional
-PLS-01040	~~A~~ B	4287	The PLANG CI shall send the current processing status of Production Requests (for On-Demand Data Products) to the originating Data Server.	Approved	demo		interface
-PLS-01240	A	4292	The PLANG CI shall support the display (via GUI) of Planning ~~hardware and~~ software detected faults to the operations staff.	Approved	demo		functional
-PLS-01610	A	4313	The PLANG CI shall be developed with configuration controlled APIs that will be capable of supporting development and integration of new algorithms developed at DAACs to support DAAC value-added production.	Approved	demo	APIs consist of public class libraries.	functional

ABLE 3: Table 3 shows the LEVEL_4 requirements that shall be <u>deleted</u> from RTM MAIN by this CCR.

L4 ID	Rel	RTM Key	L4 Text	Clarification	Req Type
S-PLS-00110	B	9034	The PLANG CI shall reject a Production Request for On-Demand Data Products if the processing completion deadline (specified in the Production Request) cannot be met.		functional
S-PLS-00120	B	9035	The PLANG CI shall validate Production Requests for On-Demand Data Products against a pre-approved list of acceptance criteria.		functional
S-PLS-00200	A	4237	The PLANG CI shall accept updates (modifications / cancellations) to Production Requests entered by the operations staff.		functional
S-PLS-00230	B	9043	The PLANG CI shall provide production rules (via GUI) to break up large reprocessing Production Requests.		functional
S-PLS-00410	A	4241	The PLANG CI shall support the capability to display (via GUI) a list of PGEs maintained in its PGE information database.		functional
S-PLS-00420	A	4242	The PLANG CI shall support the capability to browse (via GUI) the information maintained on a specific PGE.		functional
S-PLS-00430	A	4243	The PLANG CI shall support the capability to (a) allow (authorized) operations staff updates (enter / modify / delete) of PGE information in the Planning PGE information database, (b) maintain a record of updates made.		functional
S-PLS-00465	B	9050	The PLANG shall maintain lists of input Granules in order to support the production of tile or spatial-based output Granules		functional
S-PLS-00611	B	9053	The operations staff shall manually submit (to the Data Server) Data Subscriptions for the Data Availability Schedules (DAS) of any remote ECS sites, any IP and any ODC that makes a DAS available		procedural
S-PLS-00615	B	9054	The operations staff shall manually submit (to the Data Server) Data Subscriptions for FOS plans and schedules.		procedural
S-PLS-00606	B	9052	The PLANG CI shall send advertisement subscriptions to the IOS.		interface
S-PLS-00870	A	4279	The operations staff shall manually submit Data Subscriptions for PGE input data to the appropriate Data Servers.		procedural
S-PLS-00872	A	4280	The operations staff shall manually submit Data Subscriptions for L0 data to the Ingest Subsystem.		procedural
S-PLS-00880	A	4282	The operations staff shall manually cancel Data Subscriptions for input data to PGEs that are no longer used, once they determine that the input data is not required by any other PGE.		procedural
S-PLS-01450	A	4306	The PLANG CI shall collect Configuration Management Data and provide it to the MSS.		interface

CR # 96-0306b

ABLE 4: Table 4 shows the LEVEL_4 requirements that shall be <u>added</u> to RTM MAIN by this CCR.

L4 ID	Rel	RTM Key	L4 Text	Rqt Status	Verification Method	Clarification	Req Type
S-PLS-02400	B	new	The PLANG CI shall provide a list of replan events which will cause the user to be notified and given the option to replan.	Approved	inspection	This is a static list, provided at delivery.	functional
S-PLS-02410	B	new	The PLANG CI shall consider the creation of a new resource plan to be a replan event if it changes the availability of hardware resources within a configurable amount of time in the future.	Approved	test	The change in resource availability will be indicated by a new resource plan.	functional
S-PLS-02420	B	new	The PLANG CI shall consider the arrival of a new Predicted Data Availability Schedule to be a replan event if it indicates a delay in the predicted arrival of data by more than a configurable (for that particular data type) amount of time.	Approved	test	The intent is to allow the configurable parameters to be set for each individual ESDT.	functional
S-PLS-02430	B	new	The PLANG CI shall consider the submission of an On-Demand Prodution Request to be a replan event if the resource requirements exceed predefined thresholds.	Approved	test		functional
S-PLS-02440	B	new	The PLANG CI shall have the capability of providing an estimate of the resource usage for a production request prior to the inclusion of that request in a production plan.	Approved	test	This requirement is intended to assist the planning of reprocessing requests and to support on-demand requests.	functional

ABLE 5: Table 5 shows the Level 4 to RbR links that shall be created in RTM MAIN by this CCR.

RbR ID	L4 ID
EOSD0500#A	S-PLS-60010
EOSD0545#B	S-PLS-01600
EOSD0545#B	S-PLS-60380
ESN-0450#A	S-PLS-60610
PGS-0140#B	S-PLS-02400
PGS-0140#B	S-PLS-02410
PGS-0140#B	S-PLS-02420
PGS-0140#B	S-PLS-02430
PGS-0220#B	S-PLS-02440
PGS-0285#B	S-PLS-00220
PGS-1190#A	S-DPS-20850
PGS-1190#A	S-DPS-21540
PGS-1190#B	S-DPS-20850
PGS-1190#B	S-DPS-21540
SCF-0270#B	S-PLS-01210

ABLE **6:** **Table 6 shows the Level 4 to RbR links that shall be deleted from RTM MAIN by this CCR.**

RbR ID	L4 ID
DADS0540#A	S-PLS-00870
DADS0540#B	S-PLS-00870
DADS0550#A	S-PLS-00870
DADS0550#B	S-PLS-00870
DADS2020#B	S-PLS-00611
EOSD1050#A	S-PLS-00010
EOSD1050#B	S-PLS-00010
EOSD1060#A	S-PLS-00010
EOSD1060#B	S-PLS-00010
EOSD1070#A	S-PLS-00010
EOSD1070#B	S-PLS-00010
EOSD1080#A	S-PLS-00010
EOSD1080#B	S-PLS-00010
EOSD2400#A	S-PLS-00430
EOSD2400#B	S-PLS-00430
IMS-0550#B	S-PLS-00606
PGS-0140#A	S-PLS-00430
PGS-0140#B	S-PLS-00430
PGS-0160#A	S-PLS-00200
PGS-0160#B	S-PLS-00110
PGS-0160#B	S-PLS-00120
PGS-0160#B	S-PLS-00200
PGS-0165#B	S-PLS-00110
PGS-0165#B	S-PLS-00120
PGS-0180#A	S-PLS-00475
PGS-0180#B	S-PLS-00475
PGS-0190#A	S-PLS-00870
PGS-0190#A	S-PLS-00872
PGS-0190#A	S-PLS-00880
PGS-0190#B	S-PLS-00465
PGS-0190#B	S-PLS-00611
PGS-0190#B	S-PLS-00870
PGS-0190#B	S-PLS-00872
PGS-0190#B	S-PLS-00880

CR # 96-0306b

PGS-0210#A	S-PLS-00410
PGS-0210#A	S-PLS-00420
PGS-0210#A	S-PLS-00430
PGS-0210#B	S-PLS-00410
PGS-0210#B	S-PLS-00420
PGS-0210#B	S-PLS-00430
PGS-0220#B	S-PLS-00230
PGS-0230#B	S-PLS-00230
PGS-0240#A	S-PLS-00020
PGS-0240#B	S-PLS-00020
PGS-0270#A	S-PLS-00710
PGS-0270#B	S-PLS-00710
PGS-0285#B	S-PLS-01210
PGS-0310#A	S-PLS-01450
PGS-0310#B	S-PLS-01450
PGS-0410#A	S-PLS-01040
PGS-0520#B	S-PLS-00465
PGS-0930#A	S-PLS-00430
PGS-0930#B	S-PLS-00430
PGS-1130#B	S-PLS-00875
PGS-1190#A	S-PLS-01270
PGS-1190#B	S-PLS-01270
SMC-1345#A	S-PLS-00710
SMC-1345#B	S-PLS-00710